



# Questions and Answers

**Question: What is Impulse 7010, Defibrillator Selectable Load Accessory used for?**

**Answer:** Impulse 7010, Defibrillator Selectable Load Accessory, in conjunction with Impulse 7000, Defibrillator/External Pacer Analyzer, is specifically designed by Fluke Biomedical to allow defibrillator manufactures and end users to comply with portion of IEC 60601-2-4 and AAMI DF80 standards.

Since different patients have different transthoracic impedance, these two standards require manufactures to test their defibrillators on different patient resistances (25, 50, 75, 100, 125, 150 and 175  $\Omega$ ) to ensure proper current is delivered to different sizes of patients. The Impulse 7000DP optional test loads were specifically designed to allow manufacturers and end users to comply with this portion of the standards.

**Question: What is transthoracic impedance?**

**Answer:** A body's resistance to current flow across the chest.

**Question: What is the known range for human impedance?**

**Answer:** From 25 to 180 ohms.

**Question: Can all defibrillator testers test the full range of human transthoracic impedance?**

**Answer:** No. The Impulse 7010 is also the only testing tool to test defibrillators beyond 175 ohms. A 200 ohms option gives manufactures the capability to test defibrillators under extreme impedance conditions.

**Question: Why is it different in every patient?**

**Answer:** Body mass, age and disease all affect transthoracic impedance. So each patient is unique.

**Question: Why test all human transthoracic impedance variations?**

**Answer:** Impedance must be measured accurately in order to externally defibrillate a patient with the right current. Each patient requires his or her own specific therapeutic current. The Impulse 7000/7010 system tests defibrillator performance by simulating all varieties of human patients ensuring accurate impedance measurements.

**Question: How does it work?**

**Answer:** The 7010 Load box replicates selectable impedance values and sends the energy values to the Impulse 7000DP which displays the delivered energy values and identifies the waveform type. This test validates that the right current was delivered for the specific defibrillator setting, ensuring patient safety.



# Questions and Answers

**Question:** What is the recommended test frequency?

**Answer:** At least two times a year per the manufacturer's recommended frequency of inspection, and supported by IEC 60601-2-4 and AAMI DF80 standards.

**Question:** Does the Impulse 7010 work with other defibrillator analyzers other than Impulse 7000DP?

**Answer:** The Impulse 7010 **only** works with Fluke Biomedical's Impulse 7000DP defibrillator/external pacer analyzer. It will not function with Fluke Biomedical analyzers such as Impulse 6000D, Impulse 4000, QED6, QA40/45, nor with competitor products.